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Virtual Educator Professional Development

Expanding opportunities to educate and inspire teachers

The Office of Education offers interactive and engaging virtual 2-way connection workshops and webinars providing hands-on standards-based NASA-inspired activities **customized to the needs of classroom teachers.**

Face-to-Face Educator Interactions



Virtual Synchronous Educator Interactions



- Tailored to **standards** in a wide variety of topics
- Flexibility with teachers' schedules
- Direct interaction with NASA Education Specialist
- **NO COST!!**

NASA Educator Professional Development is presenting a series of free webinars open to all educators. Join NASA Education Specialists to learn about activities, lesson plans, educator guides and resources to bring NASA into your classroom.

Register for any of the seminars listed below.

PARAGON TEC
Technology • Education • Communication

Climate Time Machine

Attend this 60-minute webinar to get an overview about climate change. From some simple climate videos, games and student inventions to inspire students to think about our impact in the environment.



Upcoming Educator Professional Development Webinars

Events per page:

List View Date View

Engineering Evolution: Long-Term Projects

Tuesday, June 10, 2014 7:00:00 PM EDT - 8:00:00 PM EDT

Attend this 60-minute webinar that will provide you with NASA related long-term resources and activity guides about Engineering Design Challenges that can be modified to fit your grade level needs.

Tags: [Webinar](#) [Featured Events](#)

[Register](#)

[Event Details](#)

Toys In Space: Exploring Forces, Motion, Energy and Fun

Wednesday, June 11, 2014 7:00:00 PM EDT - 8:00:00 PM EDT

<https://paragon-tec.adobeconnect.com/admin/show-event-catalog>

Virtual Educator Professional Development Opportunities

2013-2014 NASA STEM Spanish Immersion Educator Professional Development Workshop Series HEAD IN THE CLOUDS EDITION



Designed for K-3rd & 4th-8th grade Educators

**All About Clouds:
from water drops
to rainbows**



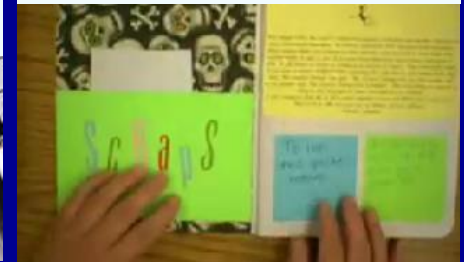
**Rain, rain, way:
Is it weather or
climate?**



**known unknowns:
Using patterns
for prediction**



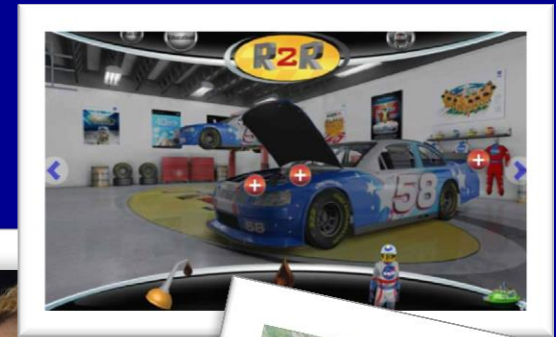
**STEM notebooks:
Let's get literal!**



Virtual Educator Professional Development Opportunities



R2R is a curriculum of engaging, hands-on NASA activities that enable students and teachers to understand the **STEM** of aerospace research and its similarities to the science of racing.



Bonnie Murray
NICE Educator Professional Development Manager
Bonnie.murray@nasa.gov
757-864-3834

NICE/NASATalk.com Earth Science week Webinars

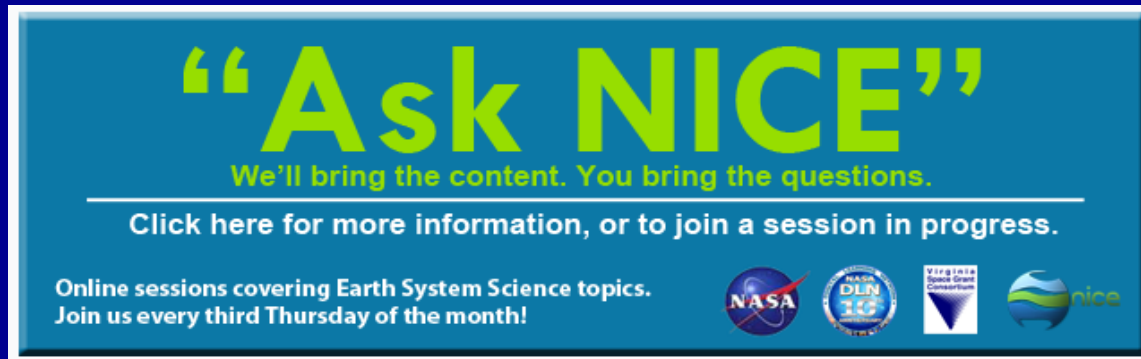
Tuesday, Oct. 16, at 4:00 & Thursday, Oct. 18 at 2:00 PM EST



- Two 30 minute webcasts
 - Focused on the NICE content being included @NASATalk.com
 - Dr. Lin Chambers and Dr. Ann Martin – SMEs
 - Also included a preview of the Spring PD series
- 119 Unique viewers (two day total)
 - 363 Unique visitors to the site from Oct. 15th through the 22nd.

Bonnie Murray
bonnie.murray@nasa.gov

Virtual Educator Professional Development



“Ask NICE”

We'll bring the content. You bring the questions.

Click here for more information, or to join a session in progress.

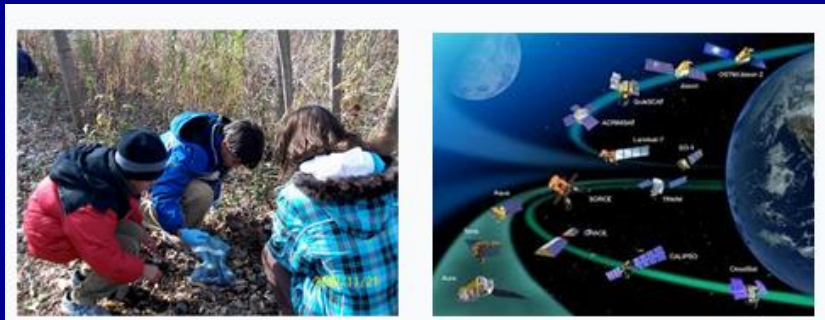
Online sessions covering Earth System Science topics.
Join us every third Thursday of the month!

NASA DLN 100 Virginia Space Grant Consortium nice

Educator Professional Development from NASA Innovations in Climate Education (NICE)

Online sessions: Third Thursdays from 4:00-5:00 PM ET
via Google+ Hangout, for details : nice.larc.nasa.gov

Nov 21st – “Earth from near and Far”



**Dec 19th – “The Green Ninja –
a Climate Action Super Hero”**



- **Goals for the project:**
 - Extend the reach of NICE projects
 - Strengthen teachers knowledge of current climate research and Earth Systems Science content
 - Provide teachers with classroom resources from NASA
 - Provide ways for teachers and students to be involved in authentic science research experiences

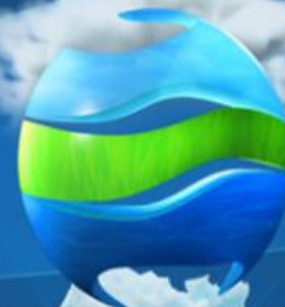
Two ways to connect:

- Watch the online session and send in questions (using the link posted on the NICE website)
- Connect to us live and participate in the session (we send you a connection link)

NICE

NASA Innovations in Climate Education

a Minority University Research and Education Program (MUREP)



[Home](#)

[About Us](#)

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TrACE

Highlights

User Login

 The Tri-Agency Climate Education (TrACE) Catalog provides search and browse access to a catalog of educational products and resources. TrACE focuses on climate education resources that have been developed by initiatives funded through NASA, NOAA, and NSF, comprising a tri-agency collaboration around climate education. [Click here to access](#)

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Climate Education News

- ☒ [Happy Holidays - A NICE Year in Review](#)
- ☒ ["Ask NICE" Educator Professional Development](#)
- ☒ [New CLEAN gap and thin spot analysis live](#)
- ☒ [Energy 101: A Model Interdisciplinary Higher Education Course for Teaching](#)

nice.larc.nasa.gov

Recordings of each session are available on the NICE website.

	"Ask NICE" Schedule - Click to view past 'Ask NICE' events
Nov. 21 4pm ET	Earth From Near and Far
Dec. 19 4pm ET	The Green Ninja - A Climate Action Super Hero
Jan. 16 4pm ET	Impacts of Climate Change/The GLOBE Program: Green-Up
Feb. 20	Earth's Energy Budget
Mar. 20	Earth's Energy Budget Continued, Student Cloud Observations On-Line: S'COOL
Apr. 17	Climate Change Summary: What We Know and How We Know It

Tri-Agency Climate Education (TrACE) Catalog Search

How to use this site:



Use the map below to browse tri-agency (NASA, NOAA & NSF) climate education projects, or use the search filter on the left to find educational resources narrowed by selected criteria

Browse the Map: Find projects in your local area using the map below. Each marker on the map represents an organization's funder. Some locations have multiple projects, so zoom in to explore. Click on a marker to view details about a project hosted in that location. Color coding is as follows: **red circles - NASA**, **blue triangles - NOAA**, **green squares - NSF**.

Filter Your Search: Expand the search filters in the left-hand column and select your search criteria. When you filter, the map will update to show you relevant locations. You can filter by product type, target audience, grade level (where applicable), funding agency, and/or geographical region, or any combination. At the bottom of the page, you will find your search results. Click on a result to learn more about each product and the project that developed it.

[About TrACE](#)

Click Heading to View Search Items

PRODUCT FEATURES:

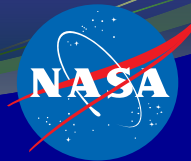
[Expand All](#) | [Collapse All](#)

- ☐ **PRODUCT TYPE:**
- ☐ **TARGET AUDIENCE:**
- ☐ **GRADE LEVEL:**
- ☐ **FUNDER:**
- ☐ **U.S. REGIONS:**

● NASA ▲ NOAA ■ NSF



TrACE Catalog Search Results:



ROCKETS 2 RACECARS

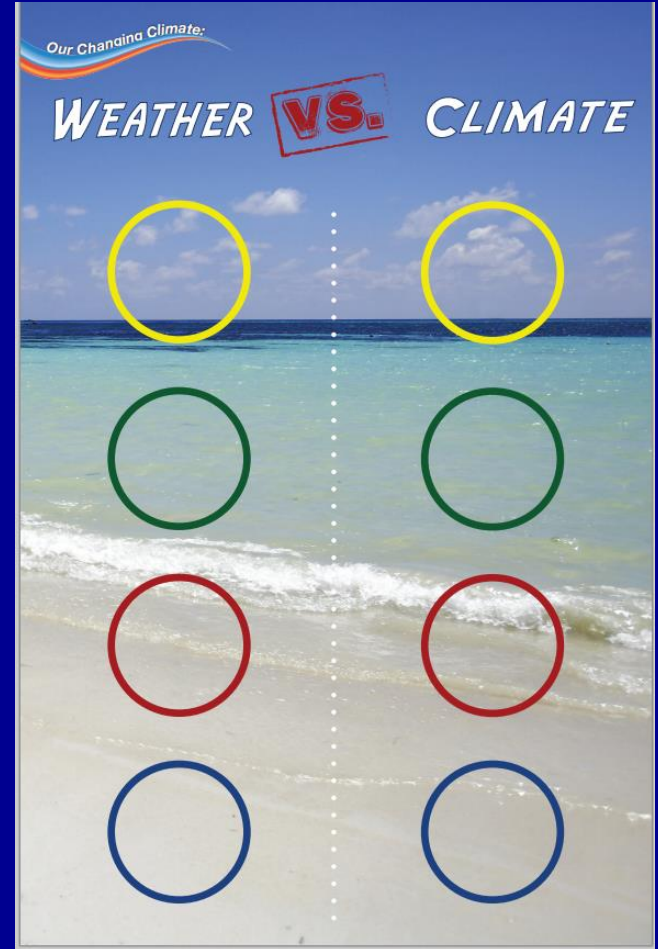
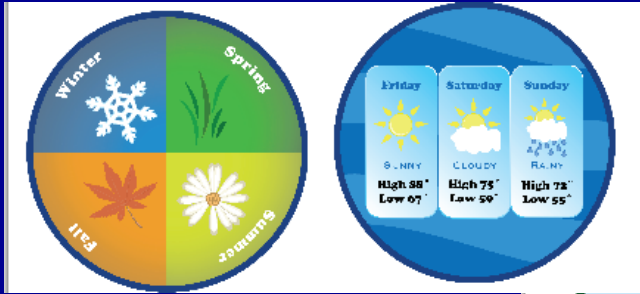
Professional
Development
Workshop Series

**NICE
Go GREEN
Edition**



Weather vs Climate Game

<http://science-edu.larc.nasa.gov/resources-games.php>



CLIMATE SCIENCE INVESTIGATIONS (CSI)

Home About Resources References



Energy: The Driver of Climate

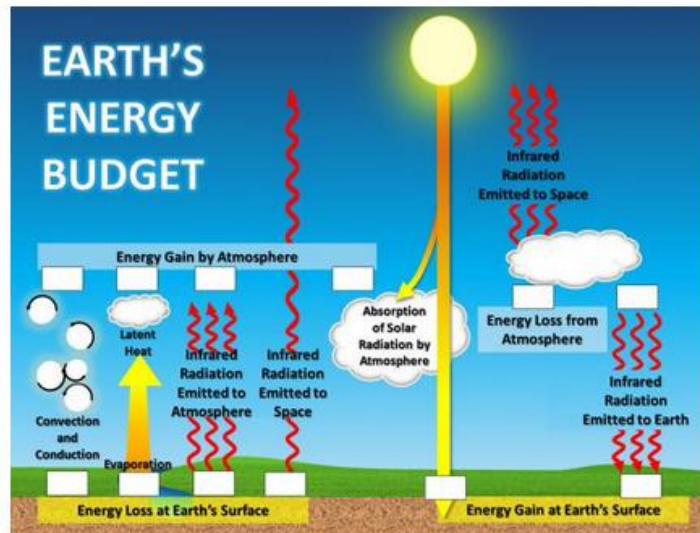
Energy: The Driver of Climate
- Module Overview
The Atmosphere
Electromagnetic Radiation
Temperature and Radiation
Earth's Energy Balance
INVESTIGATION: Earth's
Energy Budget
The Greenhouse Effect
Energy: The Driver of Climate
- Review

INVESTIGATION: Earth's Energy Budget

Introduction

As you learned from the reading, the balance between incoming energy from the sun and outgoing energy from Earth ultimately drives our climate. In the following investigation you will learn about Earth's energy budget and the processes that balance the incoming solar radiation and the outgoing terrestrial radiation. To balance the absorbed incoming energy, Earth must on average, emit the same amount of radiation to space. This balance results from several processes that occur at Earth's surface and atmosphere.

Print out the Energy Budget image. As you read the following explanations of how incoming and outgoing energy are balanced at Earth's surface and atmosphere, fill in the blanks on your handout. Check that you have input the correct units of energy gained and lost in the diagram, by filling out each table following the reading. Your total units of energy gained and lost should match (or balance).



CSI: Climate Science Investigations

<http://www.ces.fau.edu/nasa>

Going Green at the Tricky triangle



[Click above to view a recording of the EPD session.](#)



Click above to hear a short interview with Track president, Brandon Igdalsky



Pocono Raceway: Solar

System Size: 3 MW DC
Generating Since: August 25, 2010

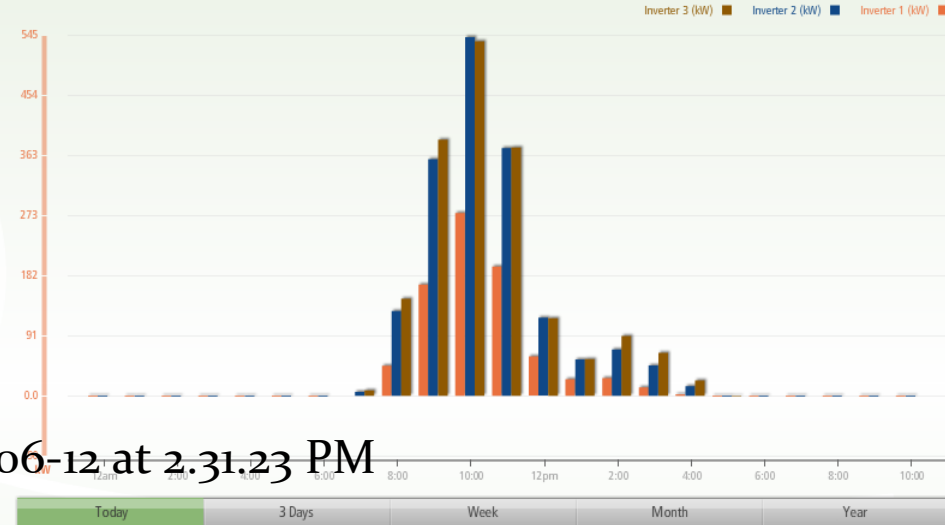
HOME

GRAPH

PROJECT DETAILS

HOW SOLAR WORKS

POWER GAUGE



Screen Shot 2014-06-12 at 2:31:23 PM

CURRENT WEATHER ON SITE

Overcast
Irradiance: 0 W/m²

15°F

5 mph

Irradiance 0 W/m²
Humidity 83.34 %

TOTAL ENERGY GENERATED EQUALS

75,736

60 Watt Bulbs for 1 Year of 8 Hour/Day Use



TOTAL ENERGY GENERATED EQUALS

1,074,748

Gallons of Gas Saved



TOTAL CO₂ OFFSET EQUALS

238,832

Trees



Powered by DEFC Monitoring

<http://www.poconoraceway.com/pocono-raceway-solar-energy.html>